The Hashemite University

College of Economics and Business Administration

Department of Finance

Fall 2012/2013

Course Title: Quantitative Methods for Finance

Instructor: Dr. Ahmad Khasawneh

Course Number: Fin 204712-01

Office Room: Econ 322

Office Hours: By appointment

Email Address: ahmadk@hu.edu.jo Phone Ext.: 4145

Instructor's website: http://staff.hu.edu.jo/ahmadkhasawneh

Course Description:

This course aims to provide the students with statistical techniques to analyze, model and forecast financial data. It provides an elementary but comprehensive introduction to the practice of financial econometrics. The main covered topics include, but not limited to, the linear regression model (simple and multiple), econometrics problems, time series data models and panel data models. Finance relationships are usually presented in time series or panel data sets, therefore a special concentration will be on the time series and panel models. We will use statistical and econometric software to analyze real world data.

Textbooks:

Required:

- Wooldridge, Jeffrey M., **Introductory Econometrics: A modern Approach**, 4th edition, Cengage, 2009. Or 5th edition 2013.

Supporting:

- Domodar Gujarati, **Basic Econometrics**, 4th edition, Mc-Graw-Hill.
- Wooldridge, Jeffrey M., ***Econometric Analysis of Cross Section and Panel Data,*** Cengage.

Software:

Stata and E-views are the software that we are going to use for this course .These two are of the most powerful and simple to use software packages. You need to install them as soon as you can in order to be able to work with us and apply the topics week by week.

Course Requirements

Attendance is required and is assumed and expected. Students missing classes should seriously reflect on their commitment to this course as missing classes are highly correlated with poor performance on the exams.

There will be a comprehensive final exam, mid-term exam, and a set of homeworks. Your final course grade will

base on your weighted average performance of the overall class work, as shown below:

	Points	**Weight**
Mid-Term Exam	**35**	**35%**
Homeworks	**25**	**25%**
Final Exam	**40**	**40%**
Total	**100**	**100%**

Final Exam:

The final exam will be comprehensive and will cover all chapters covered during the semester, the exam will include essay questions and problem solving questions. You will be given two hours to complete the final exam. We will determine the date and time of the final exam later.

Missing Exam

A missed exam may be made – up only and only if: 1) the reason for missing the exam is beyond the student's control, or 2) the student receives prior consent from the instructor for missing the exam. In either case, the student must submit a written and signed statement concerning the reasons for missing the exam, with appropriate documentation, and petition for make – up. A missed exam will carry a zero grade if these conditions are not met.

Assignments:

You will be assigned a set of empirical homeworks that you will need to apply using either Stata or E-views. I will provide you with the data sets to be used for the empirical assignments. Each one of you must submit his/here own work. Your solutions will be discussed with you in class room on the due day. At no circumstances, late submission is not accepted.

Academic Integrity

Academic integrity is fundamental to the process of learning and evaluating academic performance. Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to, the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being an accessory to acts of academic dishonesty. Should issues concerning academic integrity arise; the Hashemite University's Judicial Code will be strictly enforced. Cheating in exams will result in an automatic zero score.

Tentative Course Outline:

I. Regression Analysis with Cross – Sectional Data
   i. The Nature of Econometrics and economic data. (Ch1)
   ii. The simple regression model.(Ch 2)
   iii. Multiple Regression Analysis: estimation(Ch 3)
   iv. Multiple Regression Analysis: Inference (Ch 4)

v. Multiple Regression Analysis: further issues. (Ch 6)
vi. Multiple Regression Analysis with Qualitative information: Binary (Dummy) variables. (Ch 7)
vii. Heteroskedasticity (Ch 8)

II. Regression Analysis with Time Series Data
i. Basic Regression Analysis with time series data. (Ch 10)
ii. Further Issues in using OLS with time series data. (Ch 11)
iii. Serial correlation and Hetroskedasticity in Time series regressions. (Ch 12)

III. Regression Analysis with Panel data
i. Simple panel data methods. (Ch 13)
ii. Advanced panel data methods. (Ch14)
iii. Currying out an empirical project (Ch19)

Best Luck;